

The embodiment of this invention in which an exclusive property or privilege is claimed is defined as follows:

1. An apparatus for detecting dust comprising:

an electrically conducting detection grid having two or more interlocking tracing networks where each network has a plurality of tracing, where adjacent tracings have a specified separation or spacing and which in a dust free environment said grid represents an open circuit;

an electrically nonconducting substrate which supports said grid;

a power supply which is electrically coupled to said grid;

a means for detecting electrical changes across said grid.

2. The apparatus of claim 1 where said electrical change detection means includes a means for filtering a signal generated by a electrical change across said grid such as a voltage change.

3. The apparatus of claim 2 where said filter is a bandpass filter.
4. The apparatus of claim 2 where said filtered signal is inputted to a means for processing said signal.
5. The apparatus of claim 4 where said processing means includes a channel analyzer to which a counter is electrically coupled.
6. The apparatus of claim 4 where said processing means includes an oscilloscope.
7. The apparatus of claim 1 where said power supply is capable of providing a variable bias voltage across a plurality of traces which form said grid.
8. The apparatus of claim 1 where said trace specified separation or spacing is determined based on the expected dust particle size.